



**STATE OF MONTANA
MONTANA DEPARTMENT OF TRANSPORTATION
JOB PROFILE**

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Update

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Formal Review

Date Submitted _____

SECTION I - Identification

Working Title: Designer III

Department: Transportation

Job Code Number: 173136

Division & Bureau:
Engineering/Traffic & Safety

Job Code Title: Designer

Section & Unit: Traffic Engineering

Pay Band: 6

Work Address: Helena

Position Number: 36031, 36025

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FLSA Exempt

☒

FLSA Non-Exempt

☐

Non-Union

☒

MPEA

☐

Blue Collar

Profile Completed By:
Duane Williams

Work Phone:

Work Unit Mission Statement or Functional Description:

The **Traffic and Safety Bureau** of the Engineering Division is responsible for managing and coordinating highway safety programs and for providing management, design and technical support with respect to traffic engineering within the department. The Bureau is responsible for developing and reviewing plans and specifications for highway safety projects. The Bureau consists of the Traffic Safety Section, Traffic Engineering Section and the Rail/Highway Safety Unit.

Describe the Job's Overall Purpose:

Performs the skills associated with Designer I & II, at a more advanced level. The Designer's workload increases in the scope, number and complexity of projects. Designer III interprets a compilation of data and prepare plans that may be unprecedented and innovative.

SECTION II - Major Duties or Responsibilities

% of Time

Performs a variety of technical and pre-professional field, office and administrative duties in support of ongoing traffic safety design projects.

Project and Plan Development

85%

Design plans using computer assisted design and drafting equipment.

Attend and participate in design development meetings, and project milestone reviews (preliminary field review, alignment & grade review, plan-in-hand and final plan review). Compiles information from the reviews that may involve design changes or additions. Correlating information with other related work units.

Review design proposals, field notes, correspondence and reports for overall design objectives in order to compile the basic design plan, which involve geometrics and alignments.

Research and review "as-built" design plans to determine existing features and incorporate elements into the project.

Integrates environmental and historic features, terrain, climate, land use, utility, right-of-way, traffic and crash data as well as other field data, to develop preliminary design plans.

Make initial design determinations based on construction costs versus constructability, safety, or major environmental impact issues. Evaluates the need for applying unique design or construction methods for projects while presenting alternative designs to the supervising engineer.

Compile initial design parameters for computerized design software. Input data and develop design components to include typical sections, horizontal alignments, profiles and earthwork.

Develops and analyzes multiple design alternatives considering site conditions, topography, soils information, material availability, and cost. By minimizing impacts, selects the best alternative that is the most cost effective design.

Develop mass diagrams (design of earth moving operations) by balancing excavation computations in order to achieve a cost effective project.

Submit preliminary plans for review (alignment & grade review, plan-in-hand and final plan review); gather comments from field or other work units, and modify plans accordingly.

Compile cost estimates for contract bid items. Identify and produce special provisions necessary to ensure the successful bidding and construction of a project.

Develop finished grade contours for the Environmental section to provide to the contractor, so the contractor can create the erosion control plan.

Working knowledge of project schedule and sequencing work with other entities.

Miscellaneous Design Projects

10%

Stays up-to-date with current training as well as changing practices and requirements to department standards.

Provides input to help improve department processes and workflow

Other Duties

5%

Performs a variety of other duties as assigned in support of Section, Bureau and MDT goals and objectives. Assists other MDT programs on special projects and attending training and educational sessions as required.

The following duties and/or specific tasks listed under section II above are considered “essential functions” because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):

Project and Plan Development

PHYSICAL

- Mostly office work with occasional periods of extensive field work with overnight stays.
- Lifting objects in excess of 30 lbs.
- Extensive travel throughout the state or district to project locations
- Ability to walk over uneven terrain or in water
- Operating a personal computer
- Communicating in writing, in person and over the phone
- Continual walking or standing
- Exposure to extreme weather and high-speed traffic
- Operation of motor vehicles
- Operation of power tools and/or equipment

MENTAL

- Ability to perform work under tight schedules and stressful situations.
- Ability to prioritize work due to multitude of sites, corridors and safety reviews.
- Computing arithmetic operations
- Comparing data
- Compiling information, Analyzing, Coordinating, Synthesizing, Negotiating, Instructing
- Ability to multi-task
- Ability to meet inflexible deadlines
- Decision-making that affects the public health and safety
- Instructing
- Professional interpersonal skills and behaviors
- Demands for accuracy in all aspects of work

Does this position supervise others? ☐ **Yes** ☒ **No**

May provide technical and professional guidance to lower level and peer Designers.

Attach an Organizational Chart.

SECTION III - Minimum Qualifications - List minimum requirements for the first day of work.

Critical knowledge and skills required for this position:

KNOWLEDGE:

Drafting, engineering practices, mathematics, construction processes and computer assisted design software.

SKILLS:

Effective written and verbal communication with a variety of audiences, maintain professional working relationships, and can operate various types of office equipment.

Behaviors required to perform these duties:

See MDT Core Behaviors

Education:

Check the one box indicating minimum education requirements for this position for a new employee the first day of work:

- | | |
|---|---|
| <input type="checkbox"/> No education required | <input checked="" type="checkbox"/> Related AAS/2-years college/vocational training |
| <input type="checkbox"/> High school diploma or equivalent | <input type="checkbox"/> Related Bachelor's Degree |
| <input type="checkbox"/> 1-year related college/voc. training | <input type="checkbox"/> Related Master's degree |

Please specify the acceptable fields of study:

Designer III – Band 6

Combination of technical education and experience equivalent to seven years in civil engineering technology or design drafting that includes demonstrated experience using computer aided drafting and design (CADD) software packages.

Experience:

Check the one box indicating minimum work-related experience requirements for this position for a new employee the first day of work:

- | | |
|---|---|
| <input type="checkbox"/> No prior experience required | <input type="checkbox"/> 3 to 4 years |
| <input type="checkbox"/> 1 year | <input checked="" type="checkbox"/> 5 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 6 to 7 years |

SECTION IV – Other Important Job Information

- | | |
|--|--|
| <input type="checkbox"/> Fingerprint check | <input checked="" type="checkbox"/> Valid driver's license |
| <input type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |

SECTION V – Signatures

Signature indicates this statement is accurate and complete.

Employee:

Name: _____ Title: _____

Signature: _____ Date: _____

Immediate Supervisor:

Name: _____ Title: _____

Signature: _____ Date: _____

Bureau Chief:

Name: _____ Title: _____

Signature: _____ Date: _____

Division/District Administrator:

Name: _____ Title: _____

Signature: _____ Date: _____

Department Designee:

Jennifer Jensen/Designee

Chief Human Resources Officer
Human Resources Division

Signature: _____ Date: _____